LED	State	Description	
Power	Green	The FortiGate unit is on.	
1 Ower	Off	The FortiGate unit is off.	
Status	Green	On during start up or reboot.	
Status	Off	Normal operation.	
	Green	The correct cable is in use and the connected equipment has power.	
Link / Activity	Flashing Green	Network activity at this interface.	
	Off	No link established.	
10/100	Green	The interface is connected at 100 Mbps.	





FortiGate-50B



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01-30003-0361-20070419

#### Checking the Package Contents

Connector	Туре	Speed	Protocol	Description
Internal	RJ-45	10/100 Base-T	Ethernet	3-port switch connection to up to three devices or the internal network.
WAN1 and WAN 2	RJ-45	10/100 Base-T	Ethernet	Redundant connections to the Internet.
CONSOLE	RJ-45	9600 bps	RS-232 serial	Optional connection to the management computer. Provides access to the command line interface (CLI).
USB	USB		USB	Optional connection for FortiUSB key for firmware backup and installation.

# Straight-through Ethernet cable Power Status LED LED WAN 1,2 Internal Interface Interface Back Power Cable Power Cable Power Supply WAN1 WAN2 Internal Interface, switch connection RJ-45 Serial Connection RJ-25 S

Front

## **2** Connecting

Connect the FortiGate unit to a power outlet and to the internal and external networks.

- Place the unit on a stable surface.
- The FortiGate unit requires 1.5 inches (3.75 cm) clearance above and on each side to allow for cooling.
- The Status light is on while the unit is starting up and turns off when the system is up and running.

## Power cable nnects to power supply RJ-45 to DB-9 serial cable connects to management computer Ground Straight-through Ethernet cables connect to computers on internal network Straight-through Ethernet cable connects to Internet (public switch or router)

## 3

#### Planning the Configuration

Before beginning to configure the FortiGate unit, you need to plan how to integrate the unit into your network. Your configuration plan is dependent upon the operating mode that you select: NAT/Route mode (the default) or Transparent mode.

#### Quick configuration using the default settings

You can quickly set up your FortiGate unit for a home or small office using the web-based manager and the default settings in NAT/Route mode.

All you need to do is set your network computers to use DHCP, access the web-based manager, and configure the required settings for the WAN1 interface. You can also configure DNS and a default route if needed. The FortiGate unit automatically assigns IP addresses to up to 100 computers in the internal network.

- 1. Connect the FortiGate unit to the network.
- 2. Set the all the network computers to use DHCP to automatically obtain an IP address. The FortiGate internal interface acts as a DHCP server for the internal network and assigns IP addresses to all computers in the range 192.168.1.110 –192.168.1.210.
- 3. From the management computer browse to https://192.168.1.99. The FortiGate webbased manager appears.
- Go to System > Network > Interface and select Edit for the WAN1 interface.

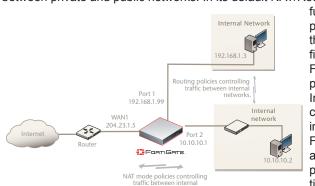
- 5. Select one of the following Addressing modes
  - Manual: enter a static IP address and netmask, select OK, and go to step 6
  - DHCP: to get an IP address from the ISP select DHCP and go to step 9
  - PPPoE: to get an IP address from the ISP select PPPoE and go to step 9
- 6. Go to **System > Network > DNS**.
- 7. Select one of the following DNS settings
  - Obtain DNS server address automatically: select to get the DNS addresses from the ISP, select Apply
  - Use the following DNS server addresses: select and enter the DNS server addresses given to you by the ISP, select Apply
- 8. Go to **Router** > **Static**, select Create New, enter the default gateway address and select OK. Network configuration is complete. Proceed to part 7 of this *Quick Start Guide*.
- Select Retrieve default gateway from server and Override internal DNS options if your ISP supports them, select OK, and proceed to part 7 of this Quick Start Guide.

Go to step 6 if you are not selecting these options

#### **NAT/Route mode**

In NAT/Route mode, each FortiGate unit is visible to the network that it is connected to. All of its interfaces are on different subnets. Each interface connected to a network must be configured with an IP address that is valid for that network.

You would typically use NAT/Route mode when the FortiGate unit is deployed as a gateway between private and public networks. In its default NAT/Route mode configuration, the unit

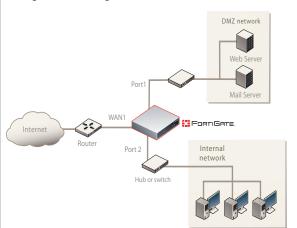


functions as a firewall. Firewall policies control communications through the FortiGate unit. No traffic can pass through the FortiGate unit until you add firewall policies.

In NAT/Route mode, firewall policies can operate in NAT mode or in Route mode. In NAT mode, the FortiGate unit performs network address translation before IP packets are sent to the destination network. In Route mode, no translation takes place.

#### Transparent mode

In Transparent mode, the FortiGate unit is invisible to the network. All of its interfaces are on the same subnet. You only have to configure a management IP address so that you can make configuration changes.



You would typically use the FortiGate unit in Transparent mode on a private network behind an existing firewall or behind a router. In its default Transparent mode configuration, the unit functions as a firewall. No traffic can pass through the FortiGate unit until you add firewall policies.

You can connect up to four network segments to the FortiGate unit to control traffic between these network segments.

#### Web-based manager

The FortiGate web-based manager is an easy to use management tool. Use it to configure the administrator password, the interface and default gateway addresses, and the DNS server addresses.

#### Requirements:

- An Ethernet connection between the FortiGate unit and management computer.
- Internet Explorer 6.0 or higher on the management computer.

#### **Command Line Interface (CLI)**

The CLI is a full-featured management tool. Use it to configure the administrator password, the interface addresses, the default gateway address, and the DNS server addresses. To configure advanced settings, see the Tools and Documentation CD-ROM.

#### Requirements:

- The RJ-45 to DB9 serial connection between the FortiGate unit and management com-
- A terminal emulation application (HyperTerminal for Windows) on the management



#### **Collecting Information**

#### **NAT/Route Mode**

Internal Interface:	IP:	
	Netmask:	
WAN1 Interface:	IP:	
	Netmask:	
WAN2 Interface	IP:	
	Netmask:	

The internal interface IP address and netmask must be valid for the internal network.

#### Transparent mode

Management IP:	IP:		
	Netmask:		

The management IP address and netmask must be valid for the network from which you will manage the FortiGate unit.

#### General settings

	<u> </u>					
ı	Administrator password:					
ı	Network Settings:	Default Gateway:				
ı		Primary DNS Server:				
ı		Secondary DNS Server:				

A default gateway is required for the FortiGate unit to route connections to the Internet.

#### Factory default settings

NAT/Route mode		Transparent mode		
Internal interface	192.168.1.99	Management IP	0.0.0.0	
WAN1 interface	192.168.100.99	Administrative account settings		
WAN2 interface	192.168.101.99	User name	admin	
DHCP server on Internal interface	192.168.1.110 - 192.168.1.210	Password	(none)	

To reset the FortiGate unit to the factory defaults, in the CLI type the command execute factory reset



#### Configuring the FortiGate Unit

#### Web-based Manager

- Connect the FortiGate internal interface to a management computer Ethernet interface. Use a cross-over Ethernet cable to connect the devices directly. Use straight-through Ethernet cables to connect the devices through a hub or switch.
- Configure the management computer to be on the same subnet as the internal interface of the FortiGate unit. To do this, change the IP address of the management computer to 192.168.1.2 and the netmask to 255.255.255.0.
- To access the FortiGate web-based manager, start Internet Explorer and browse to https://192.168.1.99 (remember to include the "s" in https://).
- Type admin in the Name field and select Login.

### **NAT/Route mode**

#### To change the administrator password

- 1. Go to System > Admin > Administrators.
- Select Change Password for the admin administrator and enter a new password.

#### To configure interfaces

- 1. Go to System > Network > Interface.
- Select the edit icon for each interface to configure.
- Set the addressing mode for the interface. (See the online help for information.)
  - For manual addressing, enter the IP address and netmask for the interface.
  - For DHCP addressing, select DHCP and any required settings
  - For PPPoE addressing, select PPPoE, and enter the username and password and any other required settings.

#### To configure the Primary and Secondary DNS server IP addresses

Go to System > Network > Options, enter the Primary and Secondary DNS IP addresses that you recorded above and select Apply.

#### To configure a Default Gateway

- 1. Go to **Router > Static** and select Edit icon for the static route.
- 2. Set Gateway to the Default Gateway IP address you recorded above and select OK.

#### **Transparent mode**

#### To switch from NAT/route mode to transparent mode

- 1. Go to **System > Config > Operation Mode** and select Transparent.
- Set the Management IP/Netmask to 192.168.1.99/24.
- Set a default Gateway and select Apply. To change the administrator password

- Go to System > Admin > Administrators.
- Select Change Password for the admin administrator and enter a new password.

#### To change the management interface

- Go to System > Config > Operation Mode.
- Enter the Management IP address and netmask that you recorded above and select

#### To configure the Primary and Secondary DNS server IP addresses

Go to System > Network > Options, enter the Primary and Secondary DNS IP addresses that you recorded above and select Apply.

#### **Command Line Interface**

- Use the RJ-45 to DB9 serial cable to connect the FortiGate Console port to the management computer serial port.
- Start a terminal emulation program (HyperTerminal) on the management computer. Use
- Baud Rate (bps) 9600, Data bits 8, Parity None, Stop bits 1, and Flow Control None.
- 4. At the Login: prompt, type admin and press Enter twice (no password required).

#### **NAT/Route mode**

Configure the FortiGate internal interface.

```
config system interface
    edit internal
         set ip <intf_ip>/<netmask_ip>
```

Repeat to configure each interface, for example, to configure the WAN1 interface.

```
config system interface
   edit wan1
```

Configure the primary and secondary DNS server IP addresses.

```
config system dns
    set primary <dns-server_ip>
    set secondary <dns-server_ip>
```

4. Configure the default gateway.

```
config router static
    edit 1
        set gateway <gateway
```

#### **Transparent Mode**

Change from NAT/Route mode to Transparent mode and configure the Management IP address.

```
config system settings
    set opmode transparent
    set manageip <mng ip>/<netmask>
    set gateway <gateway_ip>
```

Configure the DNS server IP address

```
config system dns
   set primary <dns-server ip>
    set secondary <dns-server_ip>
```

#### Completing the Configuration

#### Congratulations!

You have finished configuring the basic settings. Your network is now protected from Internetbased threats. To explore the full range of configuration options, see the online help or the Tools and Documentation CD-ROM.

Visit these links for more information and documentation for your Fortinet product.

- Technical Documentation http://docs.forticare.com
- Fortinet Technical Support http://support.fortinet.com
- Fortinet Knowledge Center http://kc.forticare.com